Special Issue

Applications of Statistical Methods and Machine Learning in the Space Sciences

Message from the Guest Editor

In this Special Issue, we would like to explore the applications of statistical and machine learning methods in astronomy and space sciences, broadly defined. We are interested in both the developments in analysis techniques include but not limited to entropy and information theory, Bayesian statistics, pattern recognition, intelligent sampling, and neural networks, and their applications in a variety of systems, such as gravitational-wave events, accretion disc variabilities, supernova explosions, pulsating stars, eclipsing binaries, exoplanets, and many more. The goal of this Special Issue is to create a strong synergy among researchers across different fields by sharing and discussing their latest research breakthroughs in tackling challenges in the big data era. Keywords:

- information theory
- big data
- bayesian statistics
- machine learning
- neural networks
- transient sources
- time domain astronomy
- high energy astrophysics
- gravitational wave astronomy
- exoplanet astronomy

Guest Editor

Dr. Hang Yu

The Division of Physics, Mathematics and Astronomy, California Institute of Technology, Pasadena, CA 91125, USA

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Entropy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
entropy@mdpi.com

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Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

Entropy is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. *Entropy* is inviting innovative and insightful contributions. Please consider *Entropy* as an exceptional home for your manuscript.

Editor-in-Chief

Prof. Dr. Kevin H. Knuth
Department of Physics, University at Albany, 1400 Washington Avenue, Albany, NY 12222, USA

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